



The Hagerstown Homebuilder

www.36.eaachapter.org/ Hagerstown, MD

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2015

Happy New Year



**From EAA Chapter 36
Officers And Support Staff**

EAA CHAPTER 36

January 2015

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Chapter Meetings held the
1st. Tuesday of each month,
7:30 PM, in the Pilots
Lounge, at the Hagerstown
Regional Airport.

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36 or the Experimental Aircraft
Association

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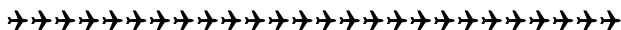
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**OUR NEXT GENERAL MEMBERSHIP MEETING WILL BE HELD JANUARY 6,
7:30 IN THE PILOTS LOUNGE AT THE HAGERSTOWN REGIONAL AIRPORT**



Chapter Minutes

December 2, 2014

Meeting called to order at 7:30pm.

Attendees:

Joe Boyle, Ken Jones, Curtis Berry, Jay Kanagy, Keith Ford, Jim Marsden, Micah Oberholzer, Dennis Slodysko, Jay Swift, Bob Berger, Dave Berger, and guest Mike Ivosevich

Last month's Treasurer's and Secretary's Reports were read and approved.

After discussion it was agreed to hold our annual awards banquet again at Mrs Gibbles restaurant. The date agreed upon is to be Saturday, March 21.

Jim Marsden and Joe Boyle reported on work ongoing on the V-Star project - the latest being riveting of bellcranks. Joe also commented that he hopes to create a second group of workers to hopefully create two teams - one working on wings while another works on the fuselage.

Next on the agenda was the election of officers and Board of Directors. Officers elected were Annette Trillanes for President, Micah Oberholzer for Vice President, and Ken Jones as Secretary/Treasurer. The Board of Directors by the by-laws always include the officers of the two previous administrations, which are Joe Boyle, Jim Golden, Ken Jones, Mark Hissey, and Ben Trillanes. Curtis Berry and Jay Swift were also elected by voice vote.

Curtis and Kate Berry have again offered to host a Christmas party at their house on December 20 beginning at 6:00pm. Curtis requested that he be notified as who is planning to attend on or before December 12, as he and Kate need that data for food planning. Ken Jones agreed to send an Email to the membership to obtain that information.

Meeting was adjourned at 7:55.

Submitted by: Ken Jones



FAA: Use Care Working Around Sensitive Magnetic Equipment

December 4, 2014 - A recent Special Airworthiness Information Bulletin (SAIB) issued by the FAA reminds builders and mechanics who use "magnetic sensitive sensors" (such as the magnetometers used to provide many modern avionics with heading data), to adhere to manufacturer recommended practices when mounting and working near the units.

"There continues to be a growing number of reports regarding heading errors and anomalies in heading reference systems due to standard maintenance practices and the use of standard tools while maintaining these systems," the bulletin states. Tools using ferrous materials, such as magnetic screwdrivers, or sources of electromagnetic interference like electric motors, can cause faulty heading readings in the units.

Homebuilders should pay extra attention to avionics manufacturer recommendations regarding the mounting of these units and consider carefully any potential source of interference, such as ferrous airframe or engine components, flap or trim motors, wiring, etc. Every amateur-built aircraft is unique, so it is important to verify any potential mounting location, even those commonly used by other builders.

Read the complete SAIB @

<http://images.eaa.org/ehotline/SAIB-CE-15-01-AHRS.pdf>.

SAIBs are informational only and *do not* contain mandatory directives. →

Judging your distance from clouds can be difficult. This week, Wally Moran offers some tips that can help you.

www.pilotworkshop.com/tips/pilot_cloud_distance.htm

What is the best/safest way to leave the traffic pattern? Both non-towered and towered airports? Bob Martens provides the answer here...

www.pilotworkshop.com/tips/pilot_pattern_departure.htm

When scanning for traffic, is there an easy way, or a trick to spotting other aircraft?

Bob Nardiello explains his method here...

http://www.pilotworkshop.com/tips/pilot_traffic_scanning.htm →

Chapter 36

News and Events

Happy Birthday

Jan. 2 – Betty Wright
Jan. 20 – Ken Jones
Jan. 26 – EAA



Our Elections for all Officers was held at the December 2014 general meeting. We have the following members elected for the 2015 – 2016 term.

President: Annette Trillanes
Vice President: Micah Oberholzer
Secretary/Treasurer: Ken Jones
Board of Directors: Current/Previous Officers plus Mark Hissey, Curtis Berry, and Jay Swift.
A special thanks goes to all of the above, who will serve our chapter during the coming two years.

Current Fuel Prices

as of
Dec. 29, 2014

	SS	FS
Hagerstown	\$5.35	\$6.10
Frederick	\$5.35	\$6.10
Martinsburg		\$6.15
Winchester	\$5.95	\$6.35
Cumberland	\$5.80	
Westminster	\$5.20	\$5.80

www.airnav.com

COMING EVENT

SPORTAIR WORKSHOPS - VAN'S RV ASSEMBLY

Frederick, MD. 2 days, Jan.17 – 18.

EAA is offering weekend assembly workshops for those interested in acquiring the skills necessary to assemble the popular RV kit aircraft.

Based on a similar format used in all workshops, the RV course will include such topics as; the FAR's pertaining to amateur-built aircraft, tools required, workshop requirements, insurance, engine and propeller selection, flight testing, etc.

The main portion of the workshop will be "hands-on" experiencing the techniques necessary to assemble the airplane.

Saturday morning we will begin with a discussion on basic sheet metal construction. After a classroom presentation, you will then spend time practicing the skills required to work with sheet metal. A practice project will be completed to allow you time to develop your skills.

Saturday afternoon you will start the main sheet metal project-a small airfoil section patterned after the RV wing. Assembly of this airfoil will include the majority of skills necessary to build the aircraft.

Most of Sunday morning will be spent actually completing the airfoil project started on Saturday. You will become very proficient in all of the basic sheet metal skills.

Sunday afternoon we will review some of the problems associated with building the RV. In addition, weight and balance, rigging, painting, etc. will be discussed. After completion of this workshop you will certainly have the confidence level needed to begin or complete your RV aircraft.

Address: EAA Chapter 524 Aviation Education Center - Hangar #2
330 Aviation Way
Frederick MD 21701

Contact: 800-967-5746

NEWS CLIPS

FAA Safety Team | Safer Skies Through Education

FAAST Blast

Notice Number: NOTC5744

Chilled to the Bone

Do you know how to keep your hypothalamus happy? Do you even know why you should?

Prolonged exposure to cold weather can wreak havoc on your body and slowly corrupt your basic motor functions; perilous for all but especially for a pilot! To understand more about how cold affects your body and your mind, check out "Chilled to the Bone" in the latest Winter Operations themed edition of FAA

Safety Briefing found here:

http://1.usa.gov/FAA_ASB. →

Hints for Homebuilders

- **Drilling Holes in Composites**, with EAA Technical Counselor Mike Busch

www.eaavideo.org/video.aspx?v=3854853240001

- **Joining Foam Cores**, with EAA Technical Counselor Mike Busch

<http://eaavideo.org/video.aspx?v=3907684429001>

- **Knife Trimming Composites**, with EAA Technical Counselor Mike Busch

www.eaavideo.org/video.aspx?v=3923707811001 →

Webinars: Free to all aviation enthusiasts

January 7: **Diagnosing a Rough Engine** - Presenter: Mike Busch

<https://attendee.gotowebinar.com/register/100000000064785019;jsessionid=abcrvlCT6h1Z09dB8TIPu>

January 14: **ADS-B: A Pilot's Guide** - Presenter: John Zimmerman

<https://attendee.gotowebinar.com/register/5785410645747145217>

View all Webinars @

www.eaa.org/en/aaa/aviation-education-and-resources/aviation-videos-and-aviation-photos/aaa-webinars →

FAA Safety Team | Safer Skies Through Education

As we wing our way through December, and creep ever closer to the official start of winter, be sure to take a peek at the latest FAA Safety Briefing. The November/December issue offers some very timely information on winter operations for the general aviation community. This issue includes features on flying with skis, how cold affects the body, and anti-ice and deice systems for GA.

The issue also includes personal advice from Flight Standards Service Director John Duncan, who was formerly based in Alaska. Duncan emphasizes how the various topics covered in the magazine can be combined to provide a better winter weather strategy. Editor Susan Parson discusses the increased danger of carburetor fires in cold conditions in her Checklist column. And Aviation Safety Inspector Steve Sparks discusses the challenges winter poses for helicopter pilots.

For more information on these topics and more please visit: www.faa.gov/news/safety_briefing/ →

In gusty crosswinds, should you use your last notch of flaps on short final?

Wally Moran answers this question here...

www.pilotworkshop.com/tips/crosswind_landings_flaps.htm →

Can you identify this aircraft?

The answer is on page 7.



Weekend Work Parties: The Unseen Difference

From EAA Volunteer Newsletter, November Issue
By Alan White, EAA Lifetime 60137, Volunteer Advisory Committee



Chapter 272 during a 2003 Weekend Work Party

I joined EAA and Duluth/Superior Chapter 272 in 1970. I remember being asked during one of the first chapter meetings that I attended if I would be interested in riding along to Oshkosh that May to participate in "The Work Party." Having grown up on a farm in southern Wisconsin, I was aware of the work part but I could not remember any partying associated with it. I figured that this must be some of the "education component" of the EAA mission and agreed to participate.

On Friday evening of the weekend before Labor Day, eight or nine chapter members piled into charter member Lawrence Bessers' VW bus and hit the road from Duluth, destination Wittman Field. The nearly eight-hour drive provided an opportunity to get to know the other members (several of whom were charter members of the chapter) and to learn something of the history of EAA.

Upon arrival, we pulled out our sleeping bags and made ourselves comfortable on the living room floor of the farmhouse that stood where the PHP Center is now. We awoke at about 5:00 AM to the sound of a chainsaw being started in the dining room! I thought "is this the party"? No, it was my introduction to the fellowship and camaraderie of the EAA volunteer workforce. Over the next day and a half we used the tools, equipment, and fuel we had brought along to begin clearing the unbelievably thick underbrush from the woodlot we now know as Paul's Park in Camp Scholler. It was hard work but yes, it was a party!

That weekend included time with our founder, Paul

Poberezny, dinner at the home of aviation legend Steve Wittman, plus a tour of Steve's hangar and whatever project he was working on at the time. It also made a lasting connection with numerous other EAA members who had also made the trek in the "Off Season" – some like myself, for what proved to be the first of many times. I remember fondly the time spent helping to make our facility what it is today. Each year I now return for our traditional weekend. I find more to be done, new things to learn, and I always look forward to reconnecting with the countless friends I have met and worked beside over the past 40+ years.

For members who are looking for a way to become a valued EAA volunteer, but have limited time during Convention, weekend work parties are a great and fulfilling way to become more connected with our organization. You'll meet many of the staff members who are in Oshkosh throughout the year, and create traditions that will build strength within your chapter. The Chapter 272 weekends I attend give me a sense of pride in the work we do. The projects we complete give a feeling of "ownership" as I point to a new building, a repaired roof or a neatly mowed grassy area, and say "I DID that!"

Gone are the days of sleeping on a carpeted floor or an exhibit hangar concrete floor.

Now we have a comfortable Volunteer Bunkhouse (built by volunteers) with heat and air conditioning, meals on Saturday and Sunday prepared and served by volunteers, and normally a Saturday evening program put on by EAA headquarters that is always educational and enjoyable.

One last request is that you contact EAA headquarters to schedule and coordinate so that projects can be planned, and accommodations confirmed.

See you at AirVenture Oshkosh 2015, and perhaps at a work party in preparation for the show! →

Making airplane noises while sitting in a fuselage with no wings or wheels is expected and normal.

Tips for cold weather engine starting

DECEMBER 18, 2014 BY BEN VISSER

Now that cold weather is here, I get asked quite often, "How long should I warm up my engine before I drive/fly off?"

As always, there is no simple answer.

Part of the reason we warm up our vehicles is to get the heater going. But there are technical reasons to warm up our cars and our planes before we take off.

The first is to get the oil warm enough to flow through all of the passages to properly lubricate the entire engine. However, the new multi-grade oils have really eliminated this as a concern.

The second has to do with the coefficient of thermal expansion of different metals. Aluminum expands at a greater rate than iron. This means that aluminum pistons shrink in the iron cylinders, so at very cold temperatures, the piston to cylinder clearance increases.

When you start an engine at very cold temperatures, it can result in excessive piston "slap" until the pistons are warmed up and expand to properly fit in the cylinders. This "slap" can overcome the lubricants' coating capabilities and result in metal to metal contact and, eventually, a scuffed piston. Therefore, it is important to not over rev or overload your engine until it warms up.

The guideline I use is to start my car, check the gauges, radio, mirrors, etc., put on my seat belt and then drive off. But — and this is an important but — I drive off slowly, being careful not to over rev the engine.

If you are pulling a heavy load behind your pickup, you need to warm the engine up longer. Also, if you have a diesel, you will want to warm the engine up longer to ensure that the fuel filter housing is warm to prevent fuel gelling.

But this is an aviation magazine, so how long should you warm up your aircraft engine?

With an aircraft engine we have another problem. It goes back to the coefficient of thermal expansion thing.

In an aircraft engine, the aluminum crank case shrinks around the iron crankshaft to reduce the bearing clearance.



A few years ago, the people at Tanis Aircraft measured a crankshaft and aluminum case.

They then rechecked the measurements after the engine sat outside all night at -25°F and they found that the clearance had disappeared.

So when you pre-heat an aircraft engine, it is not only to get the oil thin, but also to expand the crankcase so that there is adequate clearance in the main bearings so that oil can be pumped into the cavity to provide hydro-dynamic lubrication. Otherwise you will experience metal to metal contact, which will greatly reduce the life of the soft bearing material.

The big concern here is in the front main bearing, which carries the primary load of the propeller. This bearing is in the nose of the engine, which is the most exposed to the outside air and is usually least affected by the pre-heat process.

This is especially critical when using a crankcase heater. If you have a crankcase heater without individual cylinder heaters and a cowl cover, the chances are that on a very cold morning the nose section of the engine will not be heated sufficiently and the clearance in the front bearing may be inadequate. This can result in metal to metal contact for the first several revolutions of the crankshaft — which, in turn, can result in increased wear and decreased life of the front main bearing.

So always pre-heat adequately, especially at temperatures below 0°F, and make sure that the nose of the crankcase is properly heated.

Once your engine is started, how long you need to idle it really depends on how long of a taxi you will be making. If you have a long taxi prior to your run up and takeoff, then you can start taxiing shortly after you get the engine stabilized and all of your engine checks completed. If you have a short taxi, then I would idle your engine for a period. The rule that I generally use is that once the oil temperature starts moving up significantly, your engine should be ready to takeoff.

Cold starts are bad for your engine's health, but you can minimize the negative affects with some common sense and care.

Reprint: GeneralAviationNews.com →

The Aircraft pictured on page 5 is a:
1949 Fairchild XC-120 Pack Plane